

KHOLODOV, Yu.A.; VEREVKINA, G.L.

Effect of a constant magnetic field on conditioned reflexes in sea fishes. Trudy Belomor.biol.sta.MGU 1:248-255 '62.

(MIRA 16:1)

1. Kafedra fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta.

(Magnetic fields—Physiological effect)

(Conditioned response)

(Fishes—Physiology)

SHIRKOVA, G.I.; VEREVKINA, G.L.

Chain polyeffecter food reflexes to complex stimuli in monkeys.
Trudy Inst. vys. nerv. deiat. Ser. fiziol. 6:181-187 '61.

(MIRA 14:12)

1. Iz laboratorii upravitel'noy fiziologii vysshey nervnoy deyatel'-
nosti, zav. - L.G.Voronin.

(CONDITIONED RESPONSE)

SHIRKOVA, G.I.; VEREVKINA, G.L.

Conditioned motor chain reflexes in monkeys. Dokl.AN SSSR
133 no.3:730-733 J1 '60. (MIRA 13:7)
(CONDITIONED RESPONSE)
(MONKEYS)

VADYUNINA, A.F.; VEREVKINA, G.S.

Biological methods of improving Solonetz soils. Report No.2: Influence of shrubs on chemical properties and composition of Solonetz soils. Vest.Mosk.un.Ser.biol., pochv., geol., geog. 13 no.3:79-90 ' 58. (MIRA 12:1)

1. Kafedra fiziki i melioratsii pochv Moskovskogo gos. universiteta.
(Solonetz soils) (Forest influences)

GORKIN, V.Z.; VEREVKINA, I.V.

Partial purification of monoamine oxidase in rat liver
mitochondria. Vop. med. Khim. 9 no. 3:315-317 My-Je '63.
(MIRA 17:9)

1. Institut biologicheskoy i meditsinskoy khimii AMN SSSR, Moskva.

L 14467-65 AEDC(a)/AFETR/AMD/ESD(t)
ACCESSION NR: AP4042479

S/0217/64/009/004/0503/0506

AUTHOR: Veravkina, I. V.; Gorkin, V. Z.; Mityushin, V. M.; El'pinar, I. Ye.

TITLE: Effect of ultrasonic waves on monoaminoxidase bound to submicroscopic mitochondrion structures

SOURCE: Biofizika, v. 9, no. 1, 1964, 503-506

TOPIC TAGS: white rat, ultrasonic effect, liver mitochondrion, submicroscopic mitochondrion structure, monoaminoxidase activity, bound monoaminoxidase, piezoelectric generator, ultracentrifuge, electron microscope/ Spinko ultracentrifuge, UEM-100 electron microscope

ABSTRACT: Mitochondrion suspensions prepared from white rat livers

Card 1/3

U 14407-65

ACCESSION NR: AP4042479

TsLP-1 condenser centrifuge ($t=1^{\circ}$) at 8,000 g (10 min) and 12,000 g (10 min). The mitochondrion sediment, partially free of ballast protein, was suspended in a 0.01 M phosphate buffer (pH 7.4). Concentration consisted of 2 to 4 mg dry mitochondrions/ml. Monoamine oxidase activity was determined by a colorimetric method.

Card 2/3

L. 11367-65
ACCESSION NR: AP4042179

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR, Moscow (Biological
Physics Institute AN SSSR) Institut meditsinskoy i biologicheskoy khimii
Akademii meditsinskikh nauk, Moscow (Institute of Medicine and Biological
Chemistry Academy of Medical Sciences)

Card 3/3

VEREVKINA, I.V.; GORKIN, V.Z.; GRIDNEVA, L.I.; LERMAN, M.I.; ROMANOVA, L.A.
KHODERA, A. [Chodera, A.] (Pol'sha)

Inhibition of the activity of mitochondrial amine oxidases
by some tricyclic compounds. Dokl. AN SSSR 157 no.1:191-193
Jl '64 (MIRA 17:8)

1. Institut biologicheskoy i meditsinskoy khimii AMN SSSR.
Predstavleno akademikom A.I. Oparinym.

GORKIN, V.Z.; AVAKYAN, A.A.; VEREVEINA, I.V.; KOMISSAROVA, N.V.

Use of zonal electrophoresis in vertical columns with a new anticonvection material (granulated polymethylmethacrylate) for purification of amino oxidase in the blood serum. Vop. med. khim. 8 no.6:638-645 M-D '62. (MIRA 17:5)

1. Laboratoriya biokhimii aminov i drugikh azotistykh osnovaniy Instituta biologicheskoy i meditsinskoy khimii ANN SSSR, Moskva.

LERMAN, M.I.; VEREVKINA, I.V.

Inhibition of asparaginase from guinea pig blood serum. *Biochimia*
27 no.3:526-531 My-Je '62. (MIRA 15:8)

1. Chair of Biochemistry, First Medical Institute and Institute of
Biological and Medical Chemistry, Academy of Medical Sciences of
the U.S.S.R., Moscow.

(ASPARAGINASE)

ACC NR: AP6029526

(N)

SOURCE CODE: UR/0046/66/012/003/0289/0295

AUTHOR: Verevkina, L. V.; Merkulov, L. G.; Tursunov, D. A.

ORG: Leningrad Electrotechnical Institute im. V. I. Ul'yanov (Lenin) (Leningradskiy elektrotekhnicheskiy institut)

TITLE: Surface waves in a quartz crystal

SOURCE: Akusticheskiy zhurnal, v. 12, no. 3, 1966, 289-295

TOPIC TAGS: quartz crystal, crystal surface, surface wave, crystal symmetry

ABSTRACT: In view of the number of obscure points still remaining in the general theory of waves propagating along a free boundary of an anisotropic elastic body, the authors investigate the propagation of elastic waves in the free surface of X-cut quartz. All the expressions are presented in invariant form for a coordinate system with one axis coinciding with the direction of propagation. Solution of the equilibrium equation by means of an electronic computer shows a number of features specific in the propagation of a surface wave in a crystal. One of them is the fact that the angle between the plane of the displacement ellipse and the wave vector does not remain constant but varies with depth. In addition to calculations, experimental measurements of the velocities of the surface waves were made for different directions of the YZ plane of the quartz crystal. An optical method was used, based on the lateral displacement of a reflected ultrasound beam when the surface wave is excited. The experimental data obtained for different crystal samples coincided almost completely.

Card 1/2

UDC: 534.232.1: 553.621

ACC NR: AP6029526

At most angles the experimental results agreed with the theoretical values, some discrepancies being connected with a change in the type of the surface wave. The results also confirm that for all the directions of the symmetry plane only one surface wave propagates. It is concluded also that the experimental data can be used for theoretical calculations, since they make it possible to establish immediately those values of the velocity at which the roots of the boundary-condition determinant can be determined. Orig. art. has: 4 figures and 17 formulas.

SUB CODE: 20/ SUBM DATE: 20Jul64/ ORIG REF: 001/ OTH REF: 008

Card 2/2

VEREVKINA, L.V., aspirant

Experimental determination of the coefficient of spherical
aberration of symmetrical electrostatic lenses. Izv. LETI 57
no.39:257-263 '59. (MIRA 15:10)
(Electron optics) (Lenses)

GUSAK, Aleksey Adamovich; VEREVKINA, N., red.

[Problems and exercises in higher mathematics] Sbornik
zadach i uprazhnenii po vysshei matematike. Minsk,
Vysshiaia shkola, 1965. 175 p. (MIRA 18:4)

STOLYAR, A.A., kand. pedagog. nauk, red.; VEJSEVSKINA, N.M., red.;
MORGUNOVA, G.M., tekhn. red.

[Relationship between the teaching of higher mathematics
in a pedagogical institute of higher education and the
teaching of mathematics in school] Sviaz' prepodavaniia
vyshei matematiki v pedagogicheskoi vuze s prepodavaniiem
matematiki v shkole. Minsk, Izd-vo M-va vysshego, srednego
spetsial'nogo i professional'nogo obrazovaniia BSSR, 1963.
84 p. (MIRA 16:5)

(Mathematics--Study and teaching)

SHAKHNO, Konstantin Ustinovich; VEREVKINA, N.M., red.

[How to prepare for the entrance examinations in
mathematics at a school of higher education] Kak gotovit'-
sia k priemnym ekzamenam v vuz po matematike. Izd.3., ispr.
i dop. Moskva, Vysshaia shkola, 1965. 271 p.
(MIRA 18:5)

MASHKOVSKIY, Aleksandr Petrovich; VEREVKINA, N.M., red.

[Introduction to analysis. Differential calculus] Vvedenie v analiz. Differentsial'noe ischislenie. Minsk, Vysshaia shkola, 1964. 234 p. (MIRA 18:3)

GALICHENKO, Klavdiya Yakovlevna; LYASHEVICH, Kseniya Konstantinovna;
DJEBOVA, Margarita Ivanovna; SHINKEVICH, N.I., kand. tekhn.
nauk, red.; VEREVKINA, N.M., red.; KISLYAKOVA, M.N.,
tekhn. red.

[Album of axonometric projections with explanations] Akso-
nometricheskie proektsii; al'bom s poiasneneniami. Minsk,
Izd-vo M-va vysshego i srednego spets. i prof. obrazovaniia
BSSR, 1963. 152 p. (MIRA 16:7)

(Axonometric projection)

VEREVKINA, N.M., red.; SOSINOVICH, A.I., tekhn. red.

[Scientific information; general technical series] Nauchnaia informatsiia; seriia obshchetekhnicheskaiia. Minsk, Izd-vo M-va vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia BSSR, 1961. 52 p. (MIRA 15:6)

1. Belorusskiy tekhnologicheskii institut.
(Technology)

RIVKIND, YAkov Iosifovich; VEREVKINA, N.M., red.; MORGUNOVA, G.M.,
tekhn. red.

[Three hundred problems in mathematical analysis] 300 zadach
po matematicheskomu analizu. Minsk, Izd-vo M-va vysshego,
srednego spetsial'nogo i professional'nogo obrazovaniia
BSSR, 1962. 64 p. (MIRA 15:11)
(Mathematical analysis--Problems, exercises, etc.)

KHALIMANOVICH, Mikhail Panteleymonovich; VEREVKINA, N.M., red.

[Collection of problems on theoretical mechanics]
Sbornik zadach po teoreticheskoi mekhanike. Minsk, Izd-
vo vysshego, srednego spetsial'nogo i professional'nogo
obrazovaniia BSSR, 1963. 116 p. (MIRA 18:8)

137 AND THE OTHER PROCESSES AND PROPERTIES WERE

AM

MATZULEVICH (B. P.) & VERKOVITSEVA (Mina I. V.). Оценки серологического метода и определения зараженности клубней картофеля вирусами. [The serological method as a means of determining the infection of Potato tubers by virus diseases.] -- Pt. Prot., Leningr., 1937, 14, pp. 91-106, 1937.

The authors compare the biological and serological methods of determination of infection of potato tubers with rugose and streak mosaics [R.A.M., xvii, p. 126] in the following experiments. One half of the material, consisting of diseased and healthy specimens from the Kruger [President], Great Scot, Lorch, Seganetz, Waltman, Deodara, Epicure, Triumph, SAM, and Orig. Glacius potato varieties, was planted and observed in hothouses; the other half was reserved for

ASB.11A METALLURGICAL LITERATURE CLASSIFICATION

137 AND THE OTHER PROCESSES AND PROPERTIES WERE

implicated in the disease and of specific varietal tendencies in the production of flat or protuberant scab. In the writers' tests, the same variety under exactly comparable conditions may exhibit both forms, while other varieties develop exclusively one or the other type on different soils.

In 1936 powdery scab (*Spongospora subterranea*) (ibid., xvi, p. 374) assumed such a virulent form, especially on the Aal, Ackersbergen, Erd-gold, Robinia, and Treff As varieties, that common scab attracted no attention. A degree of control was achieved in tests with the relatively resistant Parnassia by the incorporation with the ordinary fertilizer of sulphur dust at the rate of 400 kg. per hect., which reduced the incidence of infection from 26 to 17 per cent.

YUSHCHENKO, Anisim Antonovich; GAKHOV, F.D., doktor fiz.-matem. nauk,
prof., red.; VEREVKINA, N.M., red.; KISLYAKOVA, M.N.,
tekh. red.

[Theory of derivatives] Issuchenie proizvodnoi. Pod red.
F.D.Gakhova. Minsk, Izd-vo M-va vyshego, srednego spetsial'-
nogo i professional'nogo obrazovaniia BSSR, 1963. 61 p.
(MIRA 16:9)

(Functions)

BULAVKO, Iraida Grigor'yevna; VEREVKINA, N.M., red.; MORGUNOVA, G.M.,
tekhn. red.

[Exact and approximate computations] Technye i priblizhennye
vychisleniia. Minsk, Izd-vo M-va vysshego srednego spetsial'-
nogo i professional'nogo obrazovaniia BSSR, 1963. 106 p.
(MIRA 16:8)

(Approximate computation) (Errors, Theory of)

TIKHOMIROV, I.G., prof., doktor tekhn. nauk; BUYANOV, V.A., ass.;
VINNICHENKO, A.V., ass.; MUKHO, P.B., ass.; NEVZOROV, A.V.,
dots.; TULUFOV, L.P., dots.; SHUL'ZHENKO, P.A., ass.;
YARMOLENKO, V.Ye., ass.; Prinimal uchastiye PETROV, A.P.,
prof.; VEREVKINA, N.M., red.; BELEN'KAYA, I.Ye., tekhn.
red.

[Traffic organization in railroad transportation]Organiza-
tsiia dvizheniia na zheleznodorozhnom transporte; konspekt
lektsii. Pod obshchei red. I.G.Tikhomirova. Minsk, Izd-
vo M-va vysshego, srednego spetsial'nogo i professional'-
nogo obrazovaniia BSSR, 1961. 346 p. (MIRA 15:9)

1. Chlen-korrespondent Akademii nauk SSSR (for Petrov).
(Railroads--Traffic)

RIVKIND, Yakov Iosifovich; VEREVKINA, N.M., red.; MORGUNOVA, G.M.,
tekhn. red.

[Three hundred problems in mathematical analysis] 300 zadach po
matematicheskomu analizu. Minsk, Izd-vo M-va vysshego, sred-
nego spetsial'nogo i professional'nogo obrazovaniia BSSR, 1962.
64 p. (MIRA 15:9)
(Mathematical analysis--Problems, exercises, etc.)

OVSYANNIKOV, Stepan Grigor'yevich; VEREVKINA, N.M., red.; BELEN'KAYA,
I.Ye., tekhn. red.

[Ways for improving original accounting on collective farms]
Puti usovershenstvovaniia pervichnogo ucheta v kolkhozakh.
Minsk, Izd-vo Belgosuniversiteta im. V.I.Lenina, 1960. 101 p.
(MIRA 14:8)

(Collective farms—Accounting)

PODKOVSHCHIKOVA, Yelena Ivanovna; VEREVIKINA, N.M., red.; MISHKO, A.I.,
tekhn.red.

[Application of sampling study in statistical practice; textbook]
Primenenie vyborochnogo nabliudeniia v praktike statistiki;
uchebnoe posobie. Minsk, Izd-vo Belgomuniv. im. V.I. Lenina, 1960.
24 p. (MIRA 13:12)

(Sampling (Statistics))

LAMBIN, Nikolay Venadiktovich; SAVITSKIY, F.I., red.; VEREVKINA, N.M.,
red.; BELEN'KAYA, I.Ye., tekhred.

[Symmetry method and its use in the solving of boundary value
problems] Metod simmetrii i ego primeneniye k resheniyu
kraevykh zadach. Minsk, Izd-vo Belgosuniv. imeni V.I. Stalina,
1960. 41 p. (MIRA 14:3)
(Boundary value problems)

PETROV, R.V.; KOROGODIN, V.I.; LYASS, F.M.; NEYFAKH, A.A.; ROMANTSEV, Ye.F.; VEREVKINA, N.M., red.; MORGUNOVA, G.M., tekhn. red.

[Contribution of radiology to the development of the medical and biological disciplines] Vklad radiologii v razvitie mediko-biologicheskikh distsiplin. [By] R.V.Petrov i dr. Minsk, Izd-vo M-va vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia BSSR, 1962. 145 p. (MIRA 15:9)
(RADIOBIOLOGY) (RADIOLOGY, MEDICAL)

GUSAK, Aleksey Adamovich; NAKHIMOVSKAYA, Anna Natanovna; RYABUSHKO, Anton Petrovich; TUTAYEV, Leonid Kondrat'yevich, dots.; FEDENKO, Anatoliy Semenovich; VEREVKINA, N.M., red.; KISLYAKOVA, M.N., tekhn. red.

[Problems in differential geometry] Sbornik zadach po differentsial'noi geometrii. Minsk, Izd-vo M-va vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia BSSR, 1963. 106 p. (MIRA 16:10)
(Geometry, Differential—Problems, exercises, etc.)

BLOKH, Abram Shlemovich; NEVEROV, Georgiy Stepanovich; VEREVKINA, N.M.,
red.; MORGUNOVA, G.M., tekhn. red.

[Solution of inequalities] Reshenie neravenstv. Minsk, Izd-vo
M-va vysshego, srednego spetsial'nogo i professional'nogo ob-
razovaniia BSSR, 1962. 41 p. (MIRA 15:5)
(Inequalities (Mathematics))

AL'TSHULER, Isaak Saulovich, dots., kand. tekhn. nauk; KOTOVA,
I.I., doktor tekhn. nauk, prof., nauchn. red.;
VEREVKINA, N.M., red.

[Problems in descriptive geometry] Zadachnik po nacherta-
tel'noi geometrii. Izd.2., perer. i dop. Minsk, Vysshais
shkola, 1964. 98 p. (MIRA 18:1)

VINOGRADOV, Viktor Nikonovich; VEREVKINA, N.M., red.; MORGUNOVA,
G.M., tekhn. red.

[Drawing] Cherchenie. Minsk, Izd-vo M-va vysshego, sred-
nego spetsial'nogo i professional'nogo obrazovaniia BSSR,
1963. 96 p. (MIRA 16:12)
(Mechanical drawing—Instruction)

VEREVKINA, T.S.

VEREVKINA, T.S.; ZUBOVA, N.N.

Data for the statistics on tumors in dogs and cats. Trudy AMN SSSR
21 no.4:193-197 '52. (MLRA 10:8)

1. Kafedra patologicheskoy anatomii Leningradskogo veterinarnogo
instituta (zav. prof. V.Z.Chernyak)

(NEOPLASMS, statistics,
in cats & dogs)

(CATS, diseases,
neoplasms, statist.)

(DOGS, diseases,
neoplasms, statist.)

KONAKOV, P.K.; SMIRNOV, V.A.; VEREVOCHKIN, G.Ye.

Basic criteria of the thermal process in producing ingots using the
Chokhral'skii method. Trudy MIIT no.139:210-217 '61. (MIRA 16:4)

1. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta.
(Steel ingots)

BRDLIK, P.M.; VEREVOCHKIN, G.Ye.; SMIRNOV, V.A.

Heat exchange between a jet and a plate in a normal plane to the flow.
Trudy MIIT no.139:182-192 '61. (MIRA 16:4)

(Heat—Transmission)

(Fluid dynamics)

S/649/61/000/139/017/018
1028/1228

AUTHORS: Konakov, P. K., Smirnov, V. A. and Verevochkin, G. E.
TITLE: Criteria for the thermal process of obtaining ingots by Chokral'skiy's method
SOURCE: Moscow. Institut inzhenerov zheleznodorozhnogo transporta. Trudy, no. 139. 1961. Teoriya podobiya i yeye primeneniye v teplotekhnike; trudy pervoi mezhvuzovskoy konferentsii, 210-217

TEXT: The paper describes a heat process for ingot growth and determines its criterial relationships. In the Chokral'skiy method, a priming fastened to a rotating shaft that can also move along the vertical is introduced into a melt contained in a vacuum furnace; an ingot is thereby extracted from the melt, passing during its growth through zones of different temperatures. The extraction of the ingot is described by its equations for continuity, motion and heat propagation of the melt, and the equation for heat propagation in the ingot. The conditions of single-valuedness are added to these equations. (a) At the boundary between the solid and liquid phases, the equations of matter and heat balance connect the magnitudes appearing in the equations. (b) This process is non-stationary; (c) The physical constants of the melt and the ingot depend on temperature of the melt and the ingot and criterial equations are determined as a results. There is 1 figure.

ASSOCIATION: Moskovskiy institut inzhenerov zheleznodorozhnogo transporta (Moscow Institute of Railway Transport Engineers).

Card 1/1

S/196/62/000/014/022/046
E194/E155

AUTHORS: Brdlik, P.M., Verevochkin, G.Ye., and Smirnov, V.A.

TITLE: Heat transfer between a jet and a plate placed normal to the flow

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika-i energetika, no.14, 1962, 2, abstract 14 G 10. (Tr. Mosk. in-ta inzh. zh.-d. transp., no.139, 1961, 182-192)

TEXT: An experimental study was made of heat transfer between a heated jet of liquid drops (water) and a plate placed normal to the line of flow. The experimental set-up is described and illustrated. Tests were in six series, using nozzle diameters of 2.5; 6.4; 10.7; 21.3; 30.0; and 36.6 mm. The rate of flow ranged from 0.014 to 5 m/sec and, correspondingly, the Reynolds number related to the nozzle diameter ranged from 50 to 31 000. The relative distance from the nozzle to the plate $h/d = 0.04 - 8.0$. On working out the experimental data it was found that the relationship between the relative length of the jet h/d contains three regions of heat transfer:

Card 1/2

Heat transfer between a jet and ...

S/196/62/000/014/022/046
E194/E155

$h/d \leq 0.5$; $0.5 < h/d < 10.0$; $h/d > 10.0$.

Formulae are given to calculate the heat transfer in each region and they are compared with the results obtained by other investigators. The influence on heat transfer of the wall bounding the flow when jets flow over a vertical plate is given. 9 references.

[Abstractor's note: Complete translation.]

Card 2/2

VEREVOCHKINA, V. A., Cand. Agri. Sci. (diss) "Methods and Periods of Fertilization of Permanent Grasses under Conditions of Vologda Oblast," Moscow, 1961, 15 pp. (Moscow Agri. Acad.) 200 copies (KL Supp 12-61, 279).

BOROVLEV, N.Ya., inzh.; VEREYKIN, G.V., inzh.

Working frozen soils. Mekh.stroi. 19 no.11:17-18 N '62.
(Frozen ground) (MIRA 15:11)

VEREYKINA, L. L.

S/078/60/005/008/012/018
B004/B052

AUTHORS: Vereykina, L. L., Samsonov, G. V.

TITLE: A Simple Method of Producing Titanium Phosphides¹PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 8,
pp. 1888-1889

TEXT: The authors give a brief description of western papers on titanium phosphides (Refs. 1 - 6). They investigated the reaction of titanium powder and PH_3 in an apparatus depicted in a Fig. PH_3 was produced by igniting a stoichiometric mixture of aluminum powder and red phosphorus in a steel cylinder by means of a magnesium band. The aluminum phosphide was decomposed by intensive cooling with a 10% H_2SO_4 solution in argon free from oxygen, and the mixture of argon and PH_3 was conducted over a quartz boat containing the titanium powder. The analysis of titanium phosphide was conducted according to a method by O. I. Popova and O. G. Seraya. The phosphide was dissolved in a mixture of HNO_3 and HF , the titanium was combined by a tartaric acid complex,

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A Simple Method of Producing Titanium
Phosphides

S/078/60/005/008/012/018
B004/B052

and the phosphorus was precipitated as phosphomolybdic acid. The results are listed in a Table. The development of titanium phosphide only sets in at 700°C. Ti_2P develops at 800°C after 6 h, and TiP at 850°C. The development of Ti_3P , assumed by the authors, must yet be proved by further investigations. There are 1 figure, 1 table, and 6 non-Soviet references. ✓

ASSOCIATION: Institut metallokeraniki i spetsial'nykh splavov
Akademii nauk USSR, Laboratoriya tugoplavkikh materialov
(Institute of Cermet and Special Alloys of the Academy
of Sciences, UkrSSR, Laboratory for High-melting
Materials)

SUBMITTED: July 9, 1959

Card 2/2

S/032/60/026/05/42/063
B010/B008

AUTHORS: Vereykina, L. L., Rudenko, V. N., Samsonov, G. V.

TITLE: Device for the Determination of the Ultimate Compressive Strength on Samples of Difficultly Fusible Compounds at High Temperatures

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 5, pp. 620-621

TEXT: The determinations mentioned in the title were carried out on a 30 t testing machine with a device described by V. G. Osipov (Ref. 1). The device (Fig. 1) was slightly modified by displacing the heating element and making it from VKZ-alloy. The heating of the sample is carried out by having the electric current passed directly through the heating element and the sample. If the tests are made at temperatures so high that oxidation takes place, a hollow ring is used and argon blown through. The ultimate compressive strength of titanium carbide, titanium boride, zirconium boride, chromium boride, and molybdenum disilide was carried out on samples which were obtained by hot pressing of the powders in graphite molds (Ref. 2). A diagram (Fig. 3) of the

✓B

Card 1/2

Device for the Determination of the Ultimate
Compressive Strength on Samples of Difficult-
ly Fusible Compounds at High Temperatures

S/032/60/026/05/42/063
B010/B008

dependence of the ultimate compressive strength of the investigated,
difficultly fusible compounds on the temperature is given. There are
3 figures and 3 Soviet references.

✓B

ASSOCIATION: Institut metallokeramiki i spetsial'nykh splavov Akademii
nauk USSR. (Institute of Powder Metallurgy and Special
Alloys of the Academy of Sciences of the UkrSSR)

Card 2/2

VEREYKINA, L.L.

PHASE I BOOK EXPLOITATION

80V/5737

Samsonov, Grigoriy Valentinovich, and Lyudmila Leonidovna Vereykina

Phosphides (Phosphides) Kiev, Izd-vo AN UkrSSR, 1961. 126 p. 2500 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Institut metallokeramiki i spetsial'nykh splavov.

Resp. Ed.: I. N. Frantsevich, Corresponding Member, Academy of Sciences UkrSSR;
Ed. of Publishing House: I. V. Kisina; Tech. Ed.: M. I. Yefimova.

PURPOSE: This book is intended for scientists engaged in inorganic chemical research, particularly in the field of semiconductor chemistry, and for metallurgists, aspirants, and students in advanced courses in chemistry and metallurgy.

COVERAGE: The book gives phase diagrams of metals and nonmetals combined with phosphorus (phosphides) and describes their physical and chemical properties. The preparation of phosphides, their chemical analysis, and main fields of application are also considered. Special attention is given to the semiconductor properties of phosphides, especially to compounds of the type
Card 2/5

Phosphides

80V/5737

A^{III}B^V, with a view to their use at high temperatures. The authors thank V. V. Pen'kovskiy for editorial assistance. There are 368 references: 118 Soviet, 34 English, 89 French, 15 Dutch, 10 Italian, and 102 German.

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35054

S/700/61/000/006/009/018
D267/D304

18.1200

AUTHORS: Samsonov, G. V., Verevkin, L. L. and Popova, O. I.
TITLE: Investigating chemical stability and methods of chemical analysis of Ti-P and Cr-P alloys
SOURCE: Akademiya nauk Ukrainskoy SSR. Institut metallokeramiki i spetsial'nakh splavov. Seminar po zharostoykim materialam. Kiyev, 1960. Trudy no. 6: Khimicheskiye svoystva i metody analiza tugoplavkikh soyedineniy. Kiyev, Izd-vo AS UkrSSR, 1961, 75-79

TEXT: The monophosphides (TiP and CrP) were prepared by passing PH_3 over heated metal powder under O-free argon. The phosphine was obtained by the acid decomposition of AlP . To obtain TiP it is recommended carrying out two 6-hour phosphidizations at 1000°C , and for obtaining CrP -- a single 7-hour phosphidization at 850°C . The reactions proceed faster when metal hydrides are substituted for the metals. After 10 - 12 hours' boiling, $\text{TiP}_{0.96}$ was found to be

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Investigating chemical stability ...

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D267/D304

soluble in HF (40%) + HNO₃ (conc.) and in aqua regia, but not in H₂SO₄, HNO₃, HCl, HF (40%), HNO₃ + H₂O₂, NaOH (also with H₂O₂ or with Br water), or in H₂SO₄ + HNO₃. The results are tabulated. When Ti or Cr phosphides were fused with NaOH + Na₂O₂ or NaOH + Na₂CO₃, a loss of P took place. It was, therefore, necessary to develop an acidic method of decomposition of the phosphides. TiP was dissolved in HF (40%) + HNO₃ (conc.) mixture and the solution was slightly evaporated. To prevent the hydrolysis of Ti salts 30 ml of 35% tartaric acid solution was added; also a small quantity of dry H₃BO₃ to combine F ions. The formula of the phosphide varied from TiP_{0.974} (700°C, 3 hours) to TiP_{0.97} (950°C, 6 hours). As regards CrP, it was found that the following acids dissolved it after a boiling of 6 - 8 hours: H₂SO₄ (also with HNO₃ or NH₄ persulfate), HF (40%), HCl (conc.), HCl (1:1), aqua regia; also NaOH (60%) + H₂O₂. It re-

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Investigating chemical stability ...

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mained undissolved in the presence of strong oxidants, Therefore, when analyzing CrP, the sample is dissolved by heating in HNO_3 (conc.) + H_2SO_4 (conc.) or H_2SO_4 (conc.) + $\text{NH}_4\text{S}_2\text{O}_8$, after which the excess of oxidant is removed and the total Cr content is determined volumetrically. Combined P is determined gravimetrically by precipitating with magnesia mixture. Free Cr in the phosphide is determined by making use of the fact that H_2SO_4 (1:4) dissolves free Cr, but does not dissolve CrP. The volumetric method is then used for determining Cr in the solution. There are 4 tables and 13 references: 4 Soviet-bloc and 9 non-Soviet-bloc. The reference to the English-language publication reads as follows: I. Haugton, Iron Steel Inst. (London), 115, 417 (1927).

ASSOCIATION: Institut metallokeramiki i spetsial-nykh splavov AN USSR (Institute of Powder Metallurgy and Special Alloys AS UkrSSR)

Card 3/3

89904

5.2100 - 1043 1087 1273

S/078/61/006/003/019/022
B121/B208

AUTHORS: Samsonov, G. V., Vereykina, L. I., Titkov, Yu. V.

TITLE: New method of preparing phosphides by reduction of oxides with phosphine

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 3, 1961, 749-751

TEXT: Because of their valuable and interesting properties as semiconductors, the phosphides of metals and non-metals have found wide application in pyrotechnics, in metallurgy for special coatings of steel parts, and for refining the structure of alloys. The conventional methods of preparing phosphides by direct reaction of metals with phosphorus and by reaction of metallic halides with gaseous phosphorus compounds, required a complicated equipment and were very time-consuming. A new method of preparing phosphides by the action of phosphine on oxides of metals and non-metals was devised. It bases upon the reaction $\text{MeO} + \text{PH}_3 = \text{MeP} + \text{H}_2\text{O}$, in which phosphine dissociates to phosphorus and atomic hydrogen, which promotes the reduction of oxides. The method was successfully used in the production of gallium phosphide. The gallium oxide applied is obtained by dissolving metallic

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S/078/61/006/003/019/022
B121/B208

X

New method of ...

gallium in concentrated nitric acid and by subsequent thermal decomposition of the resultant gallium nitrate at 600°C. It is then completely converted to the oxidic form at 1000°C. The resultant gallium phosphide is a yellow powder, insoluble in water, but soluble in mineral acids and alkali lyes when heated. Chemical analysis of gallium phosphide indicated 69.02% Ga, 30.78% P, corresponding to the stoichiometric composition. X-ray analysis showed a cubic lattice of the sphalerite type with $a = 5.45 \text{ \AA}$ which is in good agreement with the data of Ref. 9 (5.436 Å) and Ref. 10 (5.4504 Å). There are 1 figure and 10 references: 6 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Institut metallokeramiki i spetsial'nykh splavov Akademii nauk USSR
Otdel tugoplavkikh materialov (Institute of Powder Metallurgy and Special Alloys, Academy of Sciences UkrSSR, Division of High-melting Materials)

SUBMITTED: August 23, 1960

Card 2/2

31967
S/080/62/035/C02/001/022
D204/D302

52400
AUTHORS:

Samsonov, G. V., Vereykina, L. L. and Titkov, Yu. P.

TITLE:

The preparation of gallium phosphide

PERIODICAL:

Zhurnal prikladnoy khimii, v. 35, no. 2, 1962, 242-245

TEXT: A brief mention is first made of the potential uses of gallium phosphide, basing the suggestions on the semi-conductive and thermoelectric properties of this compound. The older methods are considered to be inconvenient technologically. In the present work the authors prepared GaP by the reaction $Ga_2O_3 + 2PH_3 = 2GaP + 3H_2O$. The apparatus was earlier described by Samsonov et al. (Ref. 5: ZhNKh, 5, 1888, (1960)). Ga_2O_3 was prepared by dissolving 99.99% Ga in conc. HNO_3 and decomposing the nitrate. The oxide contained $\sim 10^{-3}\%$ Cu, $< 10^{-2}\%$ Pb and $< 10^{-3}\%$ Sn. Temperature and time of interaction were varied between 600 - 950°C and 1 - 9

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S/080/62/035/002/001/001
D204/D302

The preparation of gallium ...

hours respectively. The products were analyzed for unreacted Ga_2O_3 and chemically combined metal and phosphorous. The method of analysis is described. GaP was found to be insoluble in boiling water or in 1:1 HCl and 1:1 H_2SO_4 , but dissolved readily in 1:1 HNO_3 and in alkalis on warming. It was found that at $750^\circ C$ the yield of GaP increased linearly from ~30% after 1 hour to ~90% after 9 hours while ~100% yields were obtained after 9 hours at $850^\circ C$ and after 1 - 3 hours at $950^\circ C$. 3 - 5 hours at $950^\circ C$ are therefore recommended, using 6 moles PH_3 /mole Ga_2O_3 . The phosphide was found to be cubic (sphalerite type) with a equal to 5.45 Å. It contained $< 10^{-3}\%$ of Fe and Pb and $\sim 10^{-3}\%$ Cu. Material of greater purity is believed to be easily attainable. There are 1 figure, 1 table and 12 references: 6 Soviet-bloc and 6 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: Mining J., 254, 133, (1960); D. Effer and C. R. Antell, J. Electrochem. Soc., 107, 110, (1960); A. Addamiano, J. Am. Chem. Soc., 82, 1537, (1960); A. Addamiano, Acta Cryst., 13, 505, (1960).

Card 2/3

The preparation of gallium ...

S/080/62/035/002/001/022
D204/D302

ASSOCIATION: Institut metallokeramiki i spetsialnykh splavov
AN USSR (Institute of Powder Metallurgy and Special
Alloys of the AS UkrSSR)

X

Card 3/3

SAMSONOV, G.V.; VEREYKINA, L.L.; Prinimal uchastiye TITKOV, Yu.B.

Preparation of indium phosphide. Ukr. khim. zhur. 30 no.1:
18-20 '64. (MIRA 17:6)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.

L 4152-65

ACCESSION NR: AT5002778

0
a. 5000 for 1 hr. Extrusion of ReSi_2 powder at 1200° yielded solid ReSi_2 with a density of 90% of the theoretical, a hardness of $1500 \pm 40 \text{ kg/mm}^2$, a shear modulus of $(14.7 \pm 0.7) \cdot 10^{-3} \text{ kg/mm}^2$, and a coefficient of thermal expansion of $6.6 \cdot 10^{-6} \text{ deg.}$ ReSi_2 has a room temperature resistivity of about 100 ohm-cm. The temperature dependence of thermal emf shows a maximum of

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859510003-9

Card 3/2

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859510003-9"

ACC NR: AP6019225

(A)

SOURCE CODE: UR/0073/66/032/002/0115/0118

AUTHOR: Samsonov, G. V.; Vereykina, L.L.; Yendrzheyevskaya, S. N.; Tikhonova, N.N.

ORG: Institute of the Problems of Material Science, AN UkrSSR (Institut Problem materialovedeniya AN UkrSSR)

TITLE: Production and some properties of rare-earth phosphides

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 32, no. 2, 1966, 115-118

TOPIC TAGS: rare earth element, phosphide, lanthanum compound, neodymium compound, samarium compound, oxidation

ABSTRACT: The literature was reviewed on various methods of producing rare-earth phosphides together with the tabulated data on their crystallochemical properties (lattice parameters and densities determined from x-ray diffraction patterns). The reaction of phosphine (PH_3) with rare-earth metals or their oxides was used in this investigation for preparing La, Nd, and Sm phosphides. Phosphidization was carried out in an apparatus described previously (L. L. Vereykina and G. V. Samsonov, Zh. neorg. kh., 5, 1888, 1960) by passing PH_3 over heated metal or oxide powder. The LaP, having a nearly stoichiometric composition, was obtained by the reaction of PH_3 with La_2O_3 at 1200-1250C and a 3-5 hr exposure to the flow of H. The LaP powder was dark gray in color, it was insoluble in water and in cold and heated alkali solutions, but it

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UDC: 546+661.865

ACC NR: AP6019225

dissolved well in diluted and concentrated HCl and aqua regia, and was weakly soluble in H_2SO_4 at any concentration. The NdP was produced either from metallic Nd at 1100C and a 3 hr exposure to an Ar atmosphere, or from Nd_2O_3 at 1350C and a 3 hr exposure in H. The NdP powder had a black color, a nearly stoichiometric composition, was insoluble in H_2O , but dissolved in the same solvents as LaP; SmP of nearly stoichiometric composition was produced from metallic Sm at 900C after 7 hrs. of phosphidization, and from Sm_2O_3 at 900-1350C and 2-5 hrs. of phosphidization. From Sm_2O_3 the SmP was formed most efficiently at 1300-1350C. It was in the form of black powder which did not change during prolonged storage in air. The SmP dissolved well in HNO_3 of various concentrations, in HCl, and partly in H_2SO_4 . It did not dissolve in H_2O and alkali solutions either cold or boiling. Thus, LaP, NdP, and SmP all dissolved well in diluted or concentrated HNO_3 . To keep the P in solution it was necessary to dissolve them in the presence of a strong oxidizer using either a mixture of HNO_3 with bromine water or diluted HNO_3 (1:1) saturated cold by KBrO_3 solution. Orig. art. has: 1 fig. and 2 tables.

SUB CODE: 07/ SUBM DATE: 30Sep64/ ORIG REF: 007/ OTH REF: 012

Card 2/2

VEREYKINA, L.L.; SAMSONOV, G.V.

Preparation and chemical properties of chromium phosphide.
Ukr.khim.zhur. 28 no.4:441-443 '62. (MIRA 15:8)

1. Institut metallokeramiki i spetsial'nykh splavov AN USSR.
(Chromium) (Phosphides)

S/081/62/000/019/012/053
B144/B180

AUTHORS: Samsonov, G. V., ~~Vereykins, L. L.~~, Popova, O. I.
TITLE: Methods of chemical analysis for, titanium - phosphorus and chromium - phosphorus alloys, and a study of their resistance to chemical corrosion
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 19, 1962, 119, abstract 19D103 (Byul. in-t metallokeram. i spets. splavov AN USSR, no. 6, 1961, 75 - 79)

TEXT: The resistance of Cr and Ti monophosphides obtained by passing phosphine over the heated metal powder to chemical corrosion was studied in acid (H_2SO_4 , HNO_3 , HCl , HF , and mixtures of them) and alkaline ($NaOH + H_2O_2$, $NaOH +$ bromine water) media and methods of analysis developed. For analyzing Ti monophosphide, the sample (0.1 - 0.15 g) is dissolved in a mixture of 40% HF and concentrated HNO_3 in a Pt dish. The solution is slightly evaporated, 30 ml of 35% tartaric acid solution and a small quantity of solid H_3BO_3 are added and the mixture is diluted to 200 ml. To 10 - 25 ml
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Methods of chemical analysis ...

S/081/62/000/019/012/053
B144/B180

of the solution obtained 10 ml concentrated HNO_3 and 15 mg NH_4NO_3 are added, it is heated to 60°C , P is precipitated by adding 100 ml molybdate solution and it is left for one night. Then it is filtered through a fine filter, the precipitation is thoroughly washed and transferred together with the filter into the NaOH titrant whose excess is backtitrated with phenolphthalein as indicator. The Ti content is determined from a weighed portion separated by precipitation with cupferron from the sulfate solution or titrimetrically after reduction to Ti^{3+} . For the analysis of Cr monophosphide, the sample (0.1 - 0.15 g) is dissolved by heating in a mixture of concentrated H_2SO_4 and HNO_3 or in a mixture of H_2SO_4 and $(\text{NH}_4)_2\text{S}_2\text{O}_8$. The solution is evaporated till evolution of a white fume and after cooling and dilution its Cr content is determined by oxidation to Cr^{6+} with $(\text{NH}_4)_2\text{S}_2\text{O}_8$ (catalyst AgNO_3) and titrating Cr^{6+} with 0.1 N Mohr's salt solution (indicator phenyl anthranilic acid). The P content is determined gravimetrically by precipitation with magnesia mixture. In order to determine the free Cr in Cr monophosphide, 0.2 - 0.25 g of the latter is treated by heating with H_2SO_4 (1 : 4) (in this case only the free Cr passes into the solution); the

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Methods of chemical analysis ...

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undissolved residue is filtered off with a glass filter no. 4 and Cr in the filtrate is determined as described above. Rational methods were developed for the preparation of Ti and Cr monophosphides. [Abstracter's note: Complete translation.]

Card 3/3

SAMSONOV, G.V.; VEREYKINA, L.L.; TITKOV, Yu.B.

Production of gallium phosphide. Zhur.prikl.khim. 35 no.2:242-245
F '62. (MIRA 15:2)

1. Institut metallokeramiki i spetsial'nykh splavov AN USSR.
(Gallium phosphide)

SAMSONOV, G.V.; VEREYKINA, L.L.; POPOVA, O.L.

Study of the chemical stability and methods of chemical analysis
of titanium-phosphorous alloys and chromium-phosphorous alloys.

Biul.Inst.metaloker. 1 spets. splav. AN URSR no.6:75-79 '61.

(MIRA 15:2)

1. Institut metallokeramiki i spetsial'nykh splavov AN USSR.
(Titanium—phosphorous alloys)(Chromium—phosphorous alloys)

VEREYN A. I.

PA 49735

USSR/Geology
Stereophotogrammetry
Geological Prospecting

Mar 1946

"Use of Terrestrial Stereophotogrammetry for Geological Surveys," A. I. Vereyn, 3 pp

"Zavredka Nedr" No 2

In postwar period one of most important tasks is discovery of new mineral and ore deposits to supply the demands for fulfillment of the five-year plans. One innovation was use of aerial photography for geological surveys. In certain aspects this method was unsatisfactory, however, and as result Soviet scientists developed system of terrestrial stereophotogrammetry.

USSR/Geology (Contd)

Mar 1946

or phototheodolite photographs to obtain better detail relief and stratification. Author briefly describes the operation of this new system of survey.

49735

SUCHILIN, A.P., red.; SHARAPOV, I.Ye., red.; ~~VEREYN~~, A.I., red. vyp.;
SERGEYEVA, N.A., red. izd-va; ~~GLUKH~~YEDOVA, G.A., tekhn. red.

[Norms for map compilation and delineation work, in effect as
of May 15, 1951] Normy na kartosostavitel'skie i kartoofor-
mel'skie raboty: rukovodiashchie materialy. Utverzhdeny Zam-
stitelem ministra geologii M.M. Erokhinym 15 maia 1951 g. Mo-
skva, Gosgeolizdat, 1951. 84 p. (MIRA 16:8)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii.
(Cartography)

L 16195-65 EWT(m)/EPF(c)/EAP(j) Ps-4/Pr-4 RPL TM/JFM/RH
ACCESSION NR: AP4046064 S/0076/64/038/009/2279/2283

AUTHOR: Shigorin, D. N.; Piskunov, A. K.; Ozerova, G. A.; Shcheglova, N. A.
Vereyn, N. V.

TITLE: The role of H-bonds in processes of deactivating activated states of molecules leading to the formation of radicals.

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 9, 1964, 2279-2283

TOPIC TAGS: H bond, activated molecule, deactivation, radical formation, radical formation mechanism, intermolecular radical formation, EPR spectrum

ABSTRACT: The mechanism of radical formation and the role of H-bonds therein was investigated in processes embodying intermolecular radical formation.

"APPROVED FOR RELEASE: 09/01/2001

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Card 1/4



APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859510003-9"

L 16135-65

ACCESSION NR: AP4046084

Photo-illuminated powders under vacuum at 75K gave no EPR signal. In samples
 appeared whose intensity in these systems X... H-C...
 Photoactivation of systems with the luminescent chromophore...
 let and EPR spectra corresponding to radicals of the solvent. Photoactivation of
 systems containing the chromophoric atom $\rightarrow N$, gave a weak singlet and intense
 spectra of the solvent radical (radical yield $\sim 10^{-4}$, $n \approx 2$). If the $\rightarrow N$ atom which
 formed a H-bond with the O-H groups did not affect the electron excitation, the
 radical yield was small. In solvents (hydrocarbons) which did not contain the X-H
 groups, the luminescence of the chromophore did not give rise to EPR

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L 16195-65

ACCESSION NR: AP4046084

of a triplet state $S_0 \rightarrow S_1$ transition. A network of matrix molecules connected by H-bonds is necessary for this. The yield of the triplet state is proportional to the light intensity I^n where $n \approx 2$. The triplet activat-

State does not take part in its process

Orig. art. has: 1 table / and 4 figures.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physical
Chemical Institute)

SUBMITTED: 11 Oct 63

ENCL: 01

SUB CODE: 00

NO REF SOV: 005

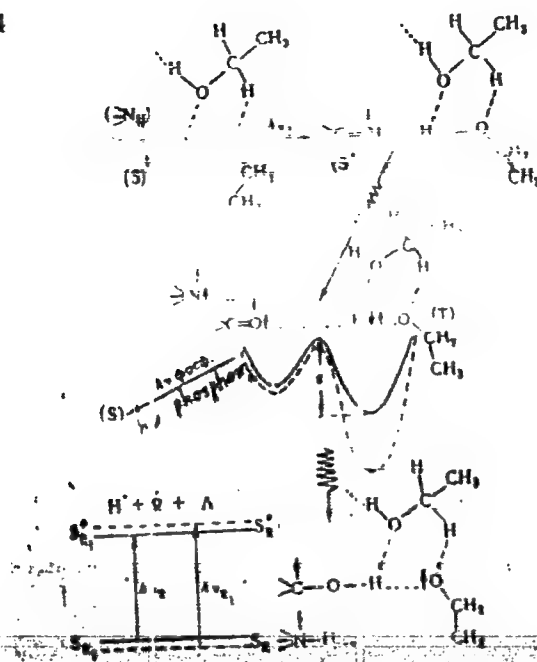
OTHER: 000

Card 3/4

L 16190-65

ACCESSION NR: AP4046084

ENCLOSURE: 01



Card 4/4

KOZLOV, Yu.I.; MUROMTSEV, V.I.; PISKUNOV, A.K.; SHIGORIN, D.N.; OZEROVA, G.A.;
VEREYN, N.V.

Formation of radicals via the triplet state in the ultraviolet
irradiation of frozen solutions of aromatic molecules. Zhur.
fiz. khim. 37 no.12:2800-2802 D '63. (MIRA 17:1)

1. Fiziko-khimicheskiy institut imeni Karpova.

PISKUNOV, A.K.; Kholmogorov, V.Ye.; Shigorin, D.N.; Vereyn, N.V.;
Ozerova, G.A.

Mechanism underlying the formation of radicals during
photoirradiation of triphenylamine ethanol solutions frozen
at 77° K. Dokl. AN SSSR 154 no.4:910-913 F '64.

(MIRA 17:3)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova. Predstav-
leno akademikom A.N. Tereninym.

MUROMTSEV, V.I.; PISKUNOV, A.K.; VEREYN, N.V.

Concerning a highly sensitive method for registering the first and second derivatives of electron paramagnetic resonance signals. Radiotekh. i elektron 7 no.7:1206-1213 '62. (MIRA 15:6)
(Paramagnetic resonance and relaxation) (Microwaves)

SHIGORIN, D.N.; PISKUNOV, A.K.; OZEROVA, G.A.; SHCHEGLOVA, N.A.; VEREYN, N.V.

Role of the H-bonding in the processes by which radicals are formed as a result of the deactivation of the excited electronic states of molecules. Dokl. AN SSSR 158 no.2:432-435 S '64.

(MIRA 17:10)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. Predstavleno akademikom S.S.Medvedevym.

KOPELIOVICH, A.V.; TIKHOMIROV, S.V.; TUREVSKAYA, Ye.S.; VEREYSKAYA, K.N.

Lithological characteristics of some horizons of ancient sedimentary formations in the southern part of the Moscow syncline.
Bul.MOIP.Otd.geol. 37 no.5:163-164, S-O '62. (MIRA 15:12)
(Moscow Region—Rocks, Sedimentary)

PISTRAK, R.M.; SEMIKHATOVA, S.V.; PASHKIVICH, Ye.I.; VERIYSKAYA, K.N.

Stratigraphy and lithology of the lower Carboniferous of White Russia. Izv. AN SSSR. Ser. geol. 21 no.4:59-76 Ap '56. (MLRA 9:8)

1. Soyuznaya geologo-poiskovaya kontora Ministerstva neftyanoy promyshlennosti SSSR, Moskva.

(White Russia--Geology, Stratigraphic)

VEREYSKAYA, V. N.

"The Development and Histological Structure of Resonators of the Lake Frog,"
Dokl. AN SSSR, 70, No.2, pp 295-98, 1950

Inst. Animal Morphology im. Severtsov, AS USSR

AUTHORS: Bednyakova, T. A., ~~Verevskaya, N. N.~~ SOV/20-122-4-56/57

TITLE: The Disinfective Effect of High Temperatures Upon the Eggs of the Silk-Moth (Bombyx mori L.) Infected With Pebrine (Nosema bombycis Haeg.) at Different Stages of the Diapause Cycle of Development (Obezrazhivayushcheye deystviye vysokikh temperatur na zarazhennyye pebrinoy (Nosema bombycis Haeg.) yaytsa tutovogo shelkopryada (Bombyx mori L.) na raznykh stadiyakh diapauznogo tsikla razvitiya)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 4, pp 737 - 740 (USSR)

ABSTRACT: When carrying out the present paper, the authors saw their task in studying the heat sensitivity of the host and of the parasite during the entire embryogeny of the silk-moth. They endeavoured to find such stages of the development in which the heat resistance of the host is higher than that of the parasite. Furthermore, it had to be ascertained in which stages and by which amounts of heat the greatest reduction of the

Card 1/4

The Disinfective Effect of High Temperatures Upon the SOV/20-122-4-56/57
Eggs of the Silk-Moth (Bombyx mori L.) Infected With Pebrine (Nosema
bombycis Naeg.) at Different Stages of the Diapause Cycle of Development

infection can be reached, although the yield of caterpillars admissible in practice from warmed up eggs had to be maintained (to at least 80%). In reference 3 the experimental methods were described. For the experiment the eggs of females of the breeds of Ascoli, ~~Toluidina~~ and the parthenogenetic clone A2 2-7, fertilized by males of other breeds, were used. The characteristics of the starting material were given in a previous paper (Ref 3). The eggs originated from ovipositions in the years 1954 and 1955. From the results obtained the authors come to the following conclusions: 1) Heating the pebrinous eggs of silk-moths at 42, 44, and 46° leads in all stages of the development to a reduction of the infection as compared with the control samples. The relation of the heat resistance of the eggs and of the parasite in different periods of the embryogeny is not the same. At an age of 1,5 to 3,5 days after the oviposition and a development at a temperature of 23°, at the end of the hibernation and

Card 2/4

The Disinfective Effect of High Temperatures Upon the SOV/20-122-4-56/57
Eggs of the Silk-Moth (Bombyx mori L.) Infected With Pebrine (Nosema
bombycis Naeg.) at Different Stages of the Diapause Cycle of Development

during the first three days of development a 90-95% reduction of the infection without danger to the vitality of the eggs can be reached, if the heating is extended for a correspondingly long time. The greatest reduction of the infection is reached by such temperatures in the preparation with warm air during the mentioned periods as are not near the threshold of physiological injury. There are 1 figure, 2 tables, and 6 references, 4 of which are Soviet.

ASSOCIATION: Institut morfologii zhivotnykh im.A.N.Severtsova Akademii nauk SSSR (Institute of Animal Morphology imeni A.N. Severtsov, AS USSR)

PRESENTED: May 10, 1958, by I.I.Shmal'gauzen, Member, Academy of Sciences, USSR

SUBMITTED: May 6, 1958
Card 3/4

The Disinfective Effect of High Temperatures Upon the SOV/20-122-4-56/57
Eggs of the Silk-Moth (Bombyx mori L.) Infected With Pebrine (Nosema
bombycis Nae'g.) at Different Stages of the Diapause Cycle of Development

Card 4/4

VEREYSKAYA, V. N., and ASTAUROV, B. L.,

"Artificial Allotetraploids (2n Bombyx mori L. + 2n B. mandarina Moore) in Silkworm and Their Bisexual Reproduction during Three Successive Generations."

report submitted for the 11th Intl. Congress of Genetics, The Hague, Netherlands,
2-10 Sep 63

BEDNYAKOVA, T.A.; VEREYSKAYA, V.N.

Disinfective effect of high temperatures on eggs of *Bombyx mori* L. infected with pebrine (*Mosema bombycis* Naeg.) at different stages of the developmental cycle (including diapause). Dokl. AN SSSR 122 no.4:737-740 O '58. (MIRA 11:11)

1. Institut morfologii zhivotnykh imeni A.N.Severtsova AN SSSR.
Predstavleno akademikom I.I. Shmal'gauzenom.
(Silkworms--Diseases and pests) (Heat as a disinfectant)

AUTHORS: Bednyakova, T. A., Vereyskaya, V. N. 20-119-2-59/60

TITLE: Disinfection of Nosematous Eggs of Bombyx Mori L.
by Subjecting Them to Sublethal Temperatures
(Obazzarazhivaniye nozematosnykh yaits tutovogo
shelkopryada deystviyem subletal'nykh temperatur)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 2,
pp. 397-400 (USSR)

ABSTRACT: The biological conditions of disinfection in vivo
are demonstrated in a synopsis together with
publications treating this subject (reference 1).
The effect of high temperatures on animals has been
relatively little investigated. The present paper
treats the heating of eggs of Bombyx mori L. for a
short period ~~infected by~~ Nosema bombycis in air or in
water. The subject is treated in collaboration with
the Tbilisi Scientific Research Institute for Silk
Cultivation (Tbilisskiy nauchno-issledovatel'skiy
institut shelkovodstva). Here the results
of the heating of fecundated and infected eggs in
water are given, from which the diapause was eliminated

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Disinfection of Nosematous Eggs of Bombyx Mori L.
by Subjecting Them to Sublethal Temperatures

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by HCl-treatment. The test material was of hybride structure. The infection was effected in two ways:
1) The silkworms of the IV-V. age were fed on mulberry tree leaves (once and twice), which had been dipped into nosema-spore suspension (from 2800 - 6000 per cubic millimeter);
2) Healthy silk worms of the same age were associated with infected silkworms (50 affected per 500 intact). The eggs of the butterflies hatched from these caterpillars were mixed, separated into portions of 100 - 300 eggs each, and heated in an ultrathermostat at 44° and 46°C in 6 different stages of age for a period of 1, 1.5, 2, 2.5, 3.5, and 4.5 days. The temperature of incubation was 23°C. Part of the samples was not heated (control). Part of the samples was prepared by air (reference 4). After the heating the eggs were cooled for 1 - 3 minutes at room-temperature. The hatched caterpillars were not raised. After their death and drying up from each specimen samples were taken with 100 little caterpillars each.

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Disinfection of Nosematous Eggs of Bombyx Mori L.
by Subjecting Them to Sublethal Temperatures

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Pulverized in a mortar, they served for the production of the suspension, which was microscopically examined without being colored. Complete disinfection could not even be achieved at a heating for 2.5 days. The reasons for the diverse destruction of the nosema-germs remains unclear and should be examined. Conclusions: The heating of nosema-affected silk worm eggs at 44 and 46°C (the diapause of which has been eliminated by HCl) leads to a decrease of the infection. The infection decreases most at a temperature of 44°C, for 2 to 7 hours; and at 46°C for 30 minutes to 3 hours, during the first two days of development. The infection intensity hereby does not exceed 4 per cent, as compared with the control. Temperatures of 44 and 46°C render practically the same results. The highest decrease of infection occurs at a heat dose which is still harmless for the eggs. There are 1 figure and 4 references, all of which are Soviet.

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Disinfection of Nosematous Eggs of Bombyx Mori L.
by Subjecting Them to Sublethal Temperatures

20-119-2-59/60

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova
Akademii nauk SSSR (Institute of Animal Morphology
imeni A. N. Severtsov, AS USSR)

PRESENTED: December 9, 1957, by K. I. Skryabin, Member, Academy
of Sciences, USSR

SUBMITTED: December 9, 1957.

Card 4/4

ASTAUROV, B.L.; BEDNYAKOVA, T.A.; VEREYSKAYA, V.N.; OSTRYAKOVA-
VARSHAVER, V.P.; LOPASHOV, G.V., *otv. red.*; IGNAT'YEVA,
G.M., *red. izd-va*; KASHINA, P.S., *tekhn. red.*

[Effect of high temperatures on silkworm eggs] *Deistvie vyso-*
kikh temperatur na grenu shelkovichnogo chervia. Moskva, Izd-
vo Akad. nauk SSSR, 1962. 124 p. (MIRA 15:10)
(Silkworms) (Temperature—Physiological effect)

Veretskaya 9a 11/1

BEDNYAKOVA, T.A.; VEREYSKAYA, V.N.

Disinfection of noseamous eggs of *Bombyx mori* L. by subjecting them to sublethal temperatures. Dokl. AN SSSR 119 no.2:397-400
Mr '58. (MIRA 11:5)

1. Institut morfologii zhivotnykh im. A.N. Severtsova AN SSSR.
(Silkworms) (Parasites--Insects)

VEREYSKAYA, V. N.

USSR/Experimental Morphology

Card 1/1

Author : Vereyskaya, V. N.

Title : Substitution of crystalline lenses of mammals with embryonic cutis

Periodical : Dokl. AN SSSR, 96, Ed. 2, 411 - 413, May 1954

Abstract : First experiments on the transplanting of crystalline lenses with embryonic cutis were carried out on rabbits. The removal of the lenses was accomplished through a cut in the cornea. The implant could not be placed in the same way into the rear section of the eye because it was consistently being forced out by the intra-eye pressure. Photos of the implanted skin are included. Nine references, photos.

Institution : Academy of Sciences, USSR, The A. N. Severtsov Institute of Animal Morphology

Presented by : Academician A. I. Abrikosov, February 5, 1954

VEREYSKAYA, V.N.; ASJAUROV, B.L.

Evidence of a possibility to overcome male sterility in tetra-
ploid silkworms by means of amphidiploidy (2n Bombyx mori- 2n B.
mandarina). Biul.MOIP.Otd.biol. 67 no.3:45-55 My-Je '62.

(MIRA 15:11)

(Silkworm breeding)

(Sterility)

17(15)

SOV/20-125-6-59/61

AUTHORS:

Bednyakova, T. A., Verayskaya, V. N.

TITLE:

Analysis of a Thermal Disinfection of the Eggs of Isolated Egg Batches of the Moth of the Silk Worm (*Bombyx mori* L.) Infected With Pebrine (*Nosema bombycis* Naeg.) (Analiz termicheskogo obezzarazhivaniya yaits v izolirovannykh kladkakh babochek tutovogo shelkopryada (*Bombyx mori* L.), zarazhennykh pebrincy (*Nosema bombycis* Naeg.))

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 6, pp 1386-1389 (USSR)

ABSTRACT:

Pebrine infection of silk worm eggs can be considerably reduced by the action of high temperatures (42, 44 and 46°), during all 4 embryogenesis periods: estival development, diapause (estivation = estivation and hibernation), and spring development (Ref 2). The degree of the disinfection thus attained varies between the individual periods and even within each individual period. The most favorable results are attained during the summer pre-diapause period, within the first 2.5 days after the eggs have been laid. Sometimes, however, there were seriously diseased samples among the slightly infected ones:

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Analysis of a Thermal Disinfection of the Eggs of Isolated Egg Batches of the Moth of the Silk Worm (*Bombyx mori* L.) Infected With Pebrine (*Hoseana bombycis* Naeg.)

sometimes the infection exceeded that of the controls. As, due to purely statistical laws, the greater or lesser fluctuation of the infection both of the test samples and the controls is unavoidable, individual random samples consisted of a mixture of healthy eggs and of eggs diseased to different degrees (Fig 1). In order to avoid this difficulty, the authors carried out their experiments in a great number of isolated egg batches of pebrine-diseased moths. There it could be determined, in-howfar the disinfecting effect of high temperatures depends upon the disease intensity in the initial sample. Pebrine-infected hybride eggs were used as a test basis. They were laid by twice infected females of the parthenogenetic clone Az2-7, after fertilization by males of different origins (mainly from Baghdad). The method was explained in reference 1. After copulation the females were isolated. Their eggs were divided into two approximately equal parts, one of which was heated in hot water, whereas the other served as a control. The heat treatment of the eggs was carried out 2.5 days after the laying of the eggs, and lasted 2 hours, at 46°. Prior to this treatment, the eggs were pre-heated in an air atmosphere (Ref 1).

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